

IN THE CLAIMS

1. (currently amended) A power control management system comprising:

at least one intelligent end device (IED);

a control computer comprising an Ethernet server configured to create and encapsulate a first set of messages intended for said at least one IED, in an industry standard format; and

an Ethernet gateway configured to communicate with said server and transmit the first set of messages to said at least one IED, wherein said gateway further configured to encapsulate a second set of messages returned from said at least one IED with an industry standard header and ~~footer for transmission~~footer, and transmit the encapsulated second set of messages to said Ethernet server.
2. (currently amended) A power control management system according to Claim 1 wherein said server further configured to generate a third set of encapsulated message by encapsulating the first set of messages with a TCP/IP Ethernet header and footer.
3. (currently amended) A power control management system according to Claim 2 wherein said gateway further configured to extract the TCP/IP Ethernet header and footer from the third set of encapsulated messages.
- 4-5. (canceled)
6. (previously presented) A power control management system according to Claim 1 wherein the industry standard header and footer includes a TCP/IP Ethernet header and footer.
7. (original) A power control management system according to Claim 1 wherein said server is further configured to act as a communications server for other programs resident in an applications layer.
8. (currently amended) A power control management system according to Claim 1 further comprising at least one IED configured with said Ethernet gateway.

9. (currently amended) A method for communicating with intelligent end devices (IEDs) in a power control management system including at least one IED, an Ethernet gateway, and a control computer including an Ethernet server, said method comprising the steps of:

electrically connecting the Ethernet gateway to the Ethernet server;

configuring the server to create and encapsulate a first set of messages intended for IEDs in an industry standard format, wherein said configuring the server to create and encapsulate the first set of messages includes configuring the server to generate a second set of encapsulated messages by encapsulating the first set of messages; and

configuring the gateway to remove the encapsulation from the second set of encapsulated messages ~~for transmission~~ and to transmit the first set of messages to the IEDs, wherein said configuring the gateway to remove the encapsulation from the second set of encapsulated messages comprises configuring the gateway to extract an industry standard header and an industry standard footer from the second set of encapsulated ~~messages; and~~ messages.

~~transmitting the first set of messages to the IEDs.~~

10. (previously presented) A method according to Claim 9 wherein said step of configuring the server to create and encapsulate the first set of messages comprises the step of encapsulating the first set of messages with a TCP/IP Ethernet header and footer.

11. (previously presented) A method according to Claim 10 wherein said configuring the gateway to extract the industry standard header and the industry standard footer comprises the step of configuring the gateway to extract the TCP/IP Ethernet header and footer from the second set of encapsulated messages.

12. (previously presented) A method according to Claim 11 further comprising the steps of:

configuring the gateway to encapsulate a third set of messages returned from the IEDs with the industry standard header and the industry standard footer, wherein

said configuring the gateway to encapsulate the third set of messages comprises configuring the gateway to generate a fourth set of encapsulated messages by encapsulating the third set of messages; and

transmitting the fourth set of encapsulated messages to the Ethernet server.

13. (previously presented) A method according to Claim 12 wherein said step of configuring the gateway to encapsulate the third set of messages comprises the step of encapsulating the third set of messages with a TCP/IP Ethernet header and footer.

14. (original) A method according to Claim 9 further comprising the step of configuring the Ethernet server to act as a communications server for other programs resident in an applications layer.

15. (currently amended) A system comprising:

a computer programmed to create and encapsulate messages in an industry standard format, said computer further programmed to function as an Ethernet server for transmission of the messages and encapsulate the messages with a TCP/IP Ethernet header and footer, wherein footer;

an intelligent end device configured to receive the messages are received by an intelligent end device; messages; and

a gateway configured to remove the encapsulation of the messages designated to be transmitted to the intelligent end device.

16. (canceled)

17. (currently amended) An Ethernet gateway comprising a programmable hardware device configured to:

receive a first set of Ethernet messages from an Ethernet server in an industry standard format;

remove both an Ethernet header and footer from the first set of Ethernet messages, leaving a second set of messages for transmission to at least one intelligent end device (IED); and

transmit the second set of messages to the at least ~~one IED~~ one IED, wherein the Ethernet gateway is located outside the at least one IED.

18. (original) An Ethernet gateway according to Claim 17 wherein the Ethernet header and footer are in a TCP/IP format.

19. (previously presented) An Ethernet gateway according to Claim 17 wherein said programmable hardware device is further programmed to receive a third set of messages from intelligent end devices.

20. (previously presented) An Ethernet gateway according to Claim 19 wherein said programmable hardware device is further programmed to:

encapsulate the third set of messages with an Ethernet header and footer; and

transmit the encapsulated messages to an Ethernet server.

21. (previously presented) An Ethernet gateway according to Claim 20 wherein the third set of messages are encapsulated with a TCP/IP header and footer.